

IN THE SPECIFICATION

Below please find the Abstract on a separate piece of paper as required by the Examiner:

The invention relates to a radiation-emitting semiconductor device (10) with a semiconductor body (1) and a substrate (2), wherein the semiconductor body (1) comprises a vertical bipolar transistor with an emitter region (3), a base region (4) and a collector region (5), which regions are each provided with a connection region (6, 7, 8), and the border between the base region (4) and the collector region (5) forms a pn-junction and, in operation, at a reverse bias of the pn-junction or at a sufficiently large collector current, avalanche multiplication of charge carriers occurs whereby radiation is generated in the collector region (5). According to the invention, the collector region (5) has a thickness through which transmission of the generated radiation occurs, and the collector region (5) borders on a free surface of the semiconductor body (1).